

became so extreme that it was impossible to effect a revulsion by the cupping, bleeding, sinapisms, and warm bath.

The congestion of blood in the lungs was evidently of very recent date, and was probably produced by the disturbed respiration. There was enough of them left sound for the purpose of life, provided the brain could have been relieved.

CASE II.—*May 28, 1831.* Examined this day at 12½ o'clock, for Dr. Edward J. Coxe, a child of Mr. Evans, in Thirteenth street, who died last night at 2 o'clock, in convulsions, which had began at 10 o'clock in the evening. This child was well on the 26th, and was permitted in the evening of that day to eat of orange; the next day she was somewhat indisposed and feverish; in the evening, at the time stated, universal convulsions came on, which lasted till she died. She was bled from the arm by Dr. Coxe, two ounces, had leeches applied to each temple, and also took two tea-spoonfuls of antimonial wine, which did not produce vomiting.

*Autopsy eight hours after death.*—Brain very much congested with blood, soft and watery—vessels of pia mater much distended—tunica arachnoidea universally separated from pia mater by serous effusion beneath it, small quantity of serum in ventricles. Medulla spinalis not examined.

Viscera of thorax healthy.

Viscera of abdomen generally healthy. Mucous coat of stomach apparently sound and of a pearl colour; in the left extremity of this viscus was found a piece of a core of orange, undigested, and about the size of the end of a finger, which probably occasioned the convulsions.

ART. X. *Remarks on Scurvy, with a Case.* By J. PANCOAST, M. D.

SCURVY, in its most aggravated form, is a disease with which, in the United States, we are fortunately but little acquainted. The usual concomitants for its production, such as abject poverty, famine, impure air, constant exposure to wet and cold, deteriorated food, confinement to salted provisions, the paucity of vegetables and good water are seldom or never met with in this country of sufficient intensity or duration to produce this malady. Our mariners, however, occasionally return with it from sea, when they have on long voyages

been subjected to unaccustomed privations and exposure; but in these cases it is usually a moderate affection, seldom extending beyond the gums, and perhaps never presenting the melancholy picture of that ulcerous and hæmorrhagic condition, and almost living putrefaction described by the older writers. They are likewise, when taken from ship-board, commonly soon cured by the united efforts of good nursing, regimen, and medical care.

It is not, indeed, unusual to meet with diseases of the gums, which may be considered as slight local affections of this kind, among old persons in the lower classes of society, who, in addition to an inactive mode of life have been habituated to the use of gross indigestible aliment; and in some instances among the rich, who, besides leading a sedentary life, have pampered their appetites with rich and highly spiced viands beyond the degree which their digestive organs could sustain. In these instances the breath is loaded with fætor, the individual is incapable of much exertion, the gums are found florid and spongy, bleeding on the slightest friction, shooting up in fungous growths, or shrinking round the alveoli, when the teeth are found to vacillate in their sockets, and are liable to be lost. These cases, if we are not greatly deceived, are met with more frequently in women than in men. The term scurvy is often improperly applied by persons out of the profession to indicate any scabby or scurfy affection of the skin, and which, according to Goon's derivation, appears to have given origin to the appellation. That writer supposes it to be derived from the German compound *schar-bocke*, aggregate or cluster-pox, *scharf-pocke*, sharp or violent pox, or *schorf-pocke*, scurf or scurvy pox, which has been latinized into scorbuticus.

From the infrequency of the severe forms of this disease, its afflictive character, and oftentimes melancholy termination, I have thought a few observations in respect to its nature and history, and the relation of a case which came under my care, might not be altogether uninteresting to the readers of this Journal. The unparalleled improvements which have been made during the last fifteen or twenty years in the theory and treatment of diseases does not appear to have been extended so as to completely elucidate the nature of this affection. This arises, no doubt, in part from the comparative rarity of its occurrence. The science of war has undergone such great modifications, that rapid movements and general engagements have almost entirely taken place of the tedious devastating marches and protracted blockades of our ancestors, in which so many thousands fell victims to scurvy, as in the memorable sieges of Breda and Thorn. Navigation likewise has partaken so much of the spirit of the times,

that voyages are now accomplished in one-third the period formerly required for their performance, which, together with the increased comforts of the sailor's condition, has been a means of arresting the prevalence of this scourge, which has checkered with so melancholy a hue the medical annals of the sea. At one period of English naval history, more lives were lost by the effects of scurvy alone, than by the whole combined influence of storms and conflicts with the enemy. Sir JOHN HAWKINS narrates that during the twenty years in which he had been employed at sea, he had known ten thousand mariners to die with scurvy. In the memorable four years' voyage of Lord Anson round the world, every reader is familiar with the unparalleled havoc of this disease. One vessel buried three-fourths of her crew with this affection, and another two hundred and ninety-two out of a complement of five hundred men; and at the end of the second year, he had but seventy men fit for the least duty, out of a crew of nine hundred and sixty-one men which he sailed with. In 1726, Admiral Hosier sailed with seven ships to the West Indies, and he buried his ship's company twice with the scurvy, and died himself of a broken heart. Formerly, the deaths from this disease were so common as to amount to eight or ten every day in a moderate ship's company, and bodies sown up in hammocks lay washed about the deck, there not being strength and spirit on the part of the miserable survivors to cast them overboard. On land its ravages were nearly equally dreadful; in besieged towns as before noticed, in crowded prisons, along the cold humid shores of the German Ocean and Baltic, in Hungary where the imperial army was nearly destroyed by it in the eighteenth century, and wherever, in fact, men were subjected to cold and moisture, and a long-continued privation of healthy food, heightened in all cases by depressing passions, inactive habits, and sedentary occupations.

On the early investigation of every disease, it has always been the first step to examine what has been handed down in relation to it from the ancients; and there are always some to be met with, who from the love of learning, or a deep veneration for antiquity, can discover passages in the early fathers of our art, which accord to more or less extent with every disease which may have been produced since the period in which they lived. Thus the *σπλην μίγας*, and the *εἰλεὶς αἱμαλιδης*, of HIPPOCRATES, have been considered by many of his commentators as intended to represent the scurvy, as the enlargement and altered structure of the spleen, and the colics and hæmorrhagic discharges from the bowels have been found frequently to accompany this disease. But when we consider the mild and

genial climate in which he lived, the limited extent of navigation in those days, the active lives of the inhabitants, together with the nearly universal testimony of writers, that it is generally produced and always rendered more inveterate in cold climates, we feel disposed to look to some other quarter for the origin and more perfect description of this disease.

STRABO and PLINY both mention a disease which affected the Roman armies, that would seem to have many characteristics in common with scurvy. The former in an invasion of Arabia, and the latter in an invasion of Germany, (where the disease has since been known to prevail so extensively,) under Germanicus. It was denominated by the physicians *stomacace* and *sceletyrbe*, and was marked by loss of teeth, putrid breath, stiffness of the joints, and ulceration of the extremities, a cure for which was found in the *herba britannica*.

But according to LIND, the first undoubted description of scurvy to be met with, is that given by the Sieur JOINVILLE, in his narrative of the expedition into Egypt, under Saint Louis, in 1260. Here mention is made not only of the legs being affected, but also of the spots, fungous and putrid gums, and feeble pulse, without which the scurvy cannot be said to exist. It is more than probable that this disease must have always been in existence, as the causes of its production have always prevailed in some parts of the inhabited globe. It first became known as the disease of mariners, when the spirit of discovery urged men on to the prosecution of long voyages, with the privations, exposures, and nostalgia usually prevalent on such occasions. It first appeared as such in De Gama's discovery of the route to India by the Cape of Good Hope, in 1497, and in Cartier's second voyage to Canada, in 1535. About the same time it likewise began to attract attention as a disease of the land. In Holland, the north of Germany and Denmark, and along the shores of the Baltic, all the circumstances existed necessary to its production in the most aggravated form. The climate was cold and damp, and the low countries, then unprotected by dykes and embankments, were continually subject to overflows, the inhabitants were poor, ill fed, and lodged, and accustomed in the winter season to live almost exclusively on salted fish and meat, and oftentimes damaged grain. The disease was indeed so common from these circumstances, as to have been long known by the name of the Dutch distemper. When, in addition to this the desolation of war came, and men were forced to long marches in inclement seasons, to encampments upon the wet ground exposed to dews and storms, or shut up in towns, in constant service upon the ramparts, dejected and famished, it is not surpris-

ing that its ravages should have been dreadful, or that it should have been considered in consonance with the superstition of the times, a visitation of demons; or by others as a species of lues, with which disease it was then the fashion to consider every inveterate, loathsome complaint as having some connexion. England was also, though to a lesser extent, affected by the same causes, and it there became a common scourge, and so continued, according to Sir G. BLANE, until the general introduction of garden plants as food, which only began to take place in the reign of Catharine of Arragon. Up to this period the common food of the people of Great Britain, was salt beef and pork, with veal and bread, with scarcely any other vegetable production in the winter season; and in the summer, garden vegetables were exceedingly rare and dear, and only used on Sundays or at festivals. It had not then become the custom to lay up hay for the winter season, and cattle were consequently slaughtered in the fall, and the winter was passed without the luxury of fresh meats. Scurvy is at present only known there as a rare sporadic disease.

By the united testimony of writers it may now be considered as a similar disease upon sea and land, susceptible of production in every place where its causes exist, and of being continually endemic in regions in which they always abound, as was formerly the case on the northern shores of Europe, and is at the present time in the latitudes of Greenland which the whalers frequent.

EUGALENUS, one of the early and most voluminous writers on scurvy, and long an oracle to his successors, considered this disease under forty-nine different sections, or as composing so many different species. He introduced as forms of scurvy diseases which had nothing in common with that affection, but that they chanced to occur at the same period, or from somewhat analogous causes, or were benefited by a similar treatment, precisely as was the case within a recent period, when all diseases curable by mercury were considered venereal, and when it was as much the fashion to give that drug, in all cases of suspected syphilis, as it is now thought prudent to abstain from it. In consequence of this, those who were at sea, found in the books of Eugalenus and his followers, a description of the scurvy, differing greatly from what was presented to their view; a discrepancy which they only could reconcile by considering the disease on shore different from that of the sea, and the former was consequently denominated *land scurvy*. At sea, however, it must be admitted, that from the greater prevalence of its causes, it usually occurs with greater malignity. Sedentariness, indolence, mental depression, inactivity, chilliness, dampness, bad water, meagre indigestible diet of

unfermented bread and salted meats, there exercise their direst influence.

It was among the sailors and common soldiers chiefly that this disease prevailed, for the officers and their servants, who enjoy better pay, and consequently more comforts, were mostly exempted. It is not the saline nature of the food alone that produces the calamitous effects of the disease, for the same have ensued where fresh meats have been plenty, as was the case on board the channel fleets of Great Britain, and in the French army of the Alps, when the other causes of its production have remained the same. The experiment has indeed been tried of giving the scorbutic sea water to drink, and all attest its innocence, some even declaring that it was highly beneficial when given in sufficient quantity to act daily upon the bowels. The belief of the contagiousness of this disease has now passed away.

The first indications of scurvy may be considered a pale, bloated complexion, which approaches by degrees to a livid hue, with a listlessness and aversion to any sort of exercise, a sad and melancholy air, but usually without change of appetite, as the patient continues to eat and drink in his accustomed manner. As the disease advances, the patient feels universal lassitude, with great feebleness in his knees, and much breathlessness on making exertions. The blood-vessels in the lips and wherever they are nearest the surface assume a greenish hue. The gums begin to itch, swell, and bleed at the slightest touch. The breath is offensive. Salivation often ensues. The gums become livid, soft, spongy, and finally fungous and putrid and exceedingly painful. The skin is dry and anserine, the pulse small and feeble, and but seldom febrile. In different parts of the body, but especially upon the extremities and chest, petechial spots of an irregular shape appear, from the size of freckles, up to patches larger than the hand. Pains ensue about the joints, and œdematous swellings take place at the ankle, gradually proceeding up the limb. The bowels are in some cases costive, but more usually affected with obstinate diarrhœa, with very offensive discharges. The urinary fluids, in the course of the disease, assume a disagreeable odour and contain much sediment of a black colour. Ulcers appear upon the extremities, old ones break out anew, and former fractures, even of the longest standing, are sometimes disunited. Mercurials speedily excite intense salivation. The ulcers which are formed have a livid edge, and a bloody fungus shoots up from their surface, discharging a sanious coagulated fluid. The slightest bruises and wounds degenerate in these individuals into ulcers of this class. The gums, cheeks,

and bones of the part are sometimes destroyed from the same cause. No escharotic is beneficial in these cases, for the fungus, when once destroyed is speedily regenerated, and compression is apt to produce gangrene. The patient complains of universal pains in his bones, but more especially of a tightness and oppression about his breast, of stitches in his side, and sometimes of severe colics and suffering in his abdomen. The appetite usually continues good until the disease is very far advanced, and the patient believes himself perfectly able to walk, but on rising to attempt it, is affected with giddiness and faintness, and sometimes suddenly expires. Throughout the disease the patients are subject to discharges of blood from the gums, and as the disease advances, to hæmorrhages from the nose, stomach, bowels, and kidneys, and in some rare cases, in jets from the surface of the body. In the last stage, the flexor muscles of the legs are found irregularly hard and shrunken, palpitations of the heart are excessive and distressing, and the slightest motion is sufficient to bring on faintness or death. The intellect, however, is usually unimpaired till near the period of dissolution. Despair of relief, or any mental depression, exercises a baneful influence over the disease; and on the contrary, any pleasing excitement, such as the expectation of succour, or the stir at the eve of an engagement, has been known to have the most salutary influence over their condition.

This is but a hasty sketch of the disease; those who are inclined to investigate it more fully, I would refer to the treatise of Lind, who is unquestionably one of the ablest writers upon this subject. For it is to the period in which he lived that we can most confidently refer, for the description of the inveterate forms of this disease, as the improvements in the countries where it once raged, and the melioration in the condition of seamen and soldiers, have rendered it since, comparatively a most unusual disease. All the dissections of those who have died of scurvy, made by different individuals at various periods, agree in regard to the rapid putrefaction of the body. Most writers have stated the blood to be in a state of dissolution, of a blackish hue, and capable of being evacuated from the body, on the opening of a single vein. The muscles were found soft and flaccid, the bones softened, and with their epiphyses, in the most strongly-marked cases separated, and containing purulent matter in their spongy extremities. The lungs were sometimes gorged with black blood, pus, or serum, and sometimes compressed with false membranes. The heart flaccid and livid, with all its cavities dilated, and containing only dissolved blood. The pericardium and the different cavities of the chest containing serum. The perito-

neum lining the abdomen, and its different processes, as well as the gastro-intestinal mucous membrane, covered with livid spots. The liver and spleen softened in texture, and often highly congested. The mesenteric and many other lymphatic glands tumefied, and sometimes in a state of suppuration. The brain, however, was always found in a healthy condition, as might be inferred from the integrity of the intellectual faculties till near the period of death.

Such is a brief sketch of the frightful symptoms and consequences of this disease, as given by authors, who had the opportunity of studying it when raging in its most exasperated character as an epidemic. In the sixteenth and seventeenth centuries, when we have the first satisfactory description of the affection, it was the fashion to attribute the first cause of all diseases, and this especially, to a morbid condition of the fluids. Writers did not hesitate to state that the blood, during the course of this complaint, was in a state of putrefaction. HARVEY, BOERHAAVE, HOFFMAN, and others, lent the sanction of their great names to this mistaken theory, and we find them speaking of the alkaline and saponary or acid states of the blood, of the lentor and viscosity of one part, and the too great acrimony and thinness of the other, and of the dissolution and putridity of the whole sanguineous mass, as the cause of this disease.

We find some recommending bleeding and mercury, and others objecting to the employment of these measures with the utmost strenuousness; and with the latter we find the mass of subsequent experience to coincide, except perhaps in sporadic cases, where from the circumstances in which it is produced, the character of the disease may be somewhat different from that of the wide-spread epidemics. In the early history of every science, we perceive that there have existed limits to the discoveries of the most gifted intellects, which their successors, even though possessed of less prodigal endowments, have been able to transcend. Thus NEWTON, great as was his genius and discoveries, did not reveal to us all the wonders of the heavens, which his favourite science now satisfactorily explains, and with the labour of a life did not accomplish more than a ready school boy may now be made to comprehend. Still he as well as the classics of our science, merit the constant praise of posterity, both for what they have themselves accomplished, and for their having indicated the route for their successors to pursue. Whatever their theories may have been, those who had the most extensive practice in this disease, adopted a course nearly similar, and which experience has since mostly justified. The cold, damp residences of the scorbutic were changed for those that were more genial and dry; the



salted, indigestible and innutritious food was replaced with that of an opposite kind, or corrected by the use of vegetable acids and green herbs, and vice versa when the disease arose among individuals living on vegetables and fresh meats, as history proves to have been frequently the case; the gloomy, desponding feelings so peculiar and so injurious to the scorbutic, they endeavoured to dispel; gentle cathartics when the bowels were constipated, and bark, mineral acids, and the various astringents, when they were affected with diarrhœa; wine, beer, cider, &c. and diaphoretic and diuretic medicines with mild nutritious food, composed the treatment. Great reliance was placed upon the antiscorbutic plants, free air and exercise, when the patient was able to go abroad.

Notwithstanding the uniform testimony borne by writers to the almost catholic virtues of the antiscorbutic plants, and such nearly every esculent vegetable was at one time termed, it appears necessary to dissent in a measure from their opinion, or rather to attribute to different causes the benefits which they produced.

In many of the inveterate cases of typhus fever which have been denominated putrid or malignant, such as the jail, camp, hospital fevers, and plague, the blood is often found in a black dissolved condition, and the exhalations of the body are of an excessively fetid kind, and petechiæ even are formed upon different parts of the body. The causes upon which this state of things depends, it is evident enough are different from those which ordinarily produce scurvy. All these symptoms may be excited in a very short space of time, by immuring individuals in situations where the pabulum vitæ, the oxygen of the air, shall not exist in sufficient quantity to depurate the blood. Would any one pretend to say that vegetable food was capable in such circumstances of correcting the noxious state of the blood? The production of scurvy depends upon a very different state of things. Its causes are commonly slow and insidious in their operations. Diet and exposure, the two most powerful, are of such a kind as would be likely to irritate the gastro-intestinal mucous membrane, and deteriorate or destroy the function of assimilation. In this way every part of the body would suffer for the want of renovation, the power of the muscles would be weakened, and the capillaries be deprived of that peculiar property by which they circulate the blood, which would consequently be most liable to escape where these vessels were most numerous, as in the mucous tissue and beneath the skin. In malignant fevers, (where the blood is found dark and much corrupted, in the language of the old writers,) which have been rapidly produced by exposure to intense contagion, the disorder

has not commenced in the mucous membrane, and we consequently never find hæmorrhage from any portion of its surface till the disease has existed for a considerable time.

Something more than debility, however, is requisite to produce the characteristic features of scurvy. There is undoubtedly in this disease a vicious condition of the fluids, supposed by some of the best and latest authorities to be owing to a defective chemical composition of the constituents of the blood. What the essential cause of this derangement consists in, it is at present, in the limited state of our knowledge of the ultimate laws of vital chemistry, difficult to determine. Since the days of Hippocrates, whose belief in the existence of a special nutritive principle was long the current doctrine of the profession, the science in this respect has not made any great advancement. Physicians are still unable to determine the chemical nature of that portion of our food which forms the true aliment. It is experience alone that dictates the articles with which the table should be provided. Though we find in the kingdom of nature animals which subsist wholly on vegetables and others that eat only meat, all of which are in the full enjoyment of health, it is found that man, when similarly restricted, invariably falls into disease, and that scurvy is by no means an unusual occurrence. Our systems, it is said, require a greater variety of food, and that this disease ensues from the want of some of the peculiar principles, or the proper proportions of the elements of the blood. However true this may be, the condition of the gastro-intestinal mucous membrane, in which the most important part of nutrition is performed, must exercise great influence over its production. When gastric symptoms and fevers have supervened upon scurvy, its course has always been more rapid and fatal. Instances are very numerous, in which this disease has occurred in the midst of ordinary diet, attributable to an impaired condition of the chylopoietic viscera. We would therefore say, that instead of acting upon the acid or alkaline properties of the blood of the patient, which was supposed to be the cause of the disease, according as they themselves were acid or *saponaceous*, that the beneficial effects of vegetables were much owing to their demulcent or assuaging qualities upon the digestive mucous membrane; for these articles were only found appropriate where the disease had been produced by a salted, indigestible, irritating diet, and which was always aggravated by the use of alcoholic drinks. And in these cases the more acrid antiscorbutics, as scurvy grass, cresses, &c. were found too irritating, and it became necessary to obtund their qualities by the use of the milder salads, dandelion, lettuce, sorrel, and other articles

of the same kind. When the disease arose in a situation where vegetables and fresh meats composed the diet, (of which instances are given,) these antiscorbutics were utterly inadmissible, and it was found beneficial to resort even to salted provisions. In the northern climates, where scurvy grass and cresses have been found most beneficial in this disease, they possess much less acrid qualities than in the temperate regions where they are of less rapid growth.

From the entire history of this affection, as well as from the observations here thrown together, it appears that we may be justified in concluding that scurvy arises from defective nutrition, produced by any cause that shall prevent the assimilation of food and the renovation of the sanguineous fluid by the chyle. Hence the continued irritation of the digestive mucous membrane, by acrid indigestible articles, which moreover are scantily supplied with the material of nutrition, in the ordinary circumstances of its production are sufficient to generate this disease. It cannot be alone the innutritious nature of the food which produces this condition of the system, for it is found that a moderate supply of acid, such as the lemon, cider, or even the sauer kraut of the Germans, is sufficient to prevent its occurrence in situations in which it would otherwise take place.

At the present time there are many surgeons, and even in the British navy, who have never seen a case of scurvy. The navy of Great Britain continued to suffer severely from this affection, till 1795, when at the instigation of Sir G. BLANE and Dr. BLAIR, a full supply of lemon juice was provided, of which it has been since the custom to give an ounce, with an ounce and a half of sugar daily, with the regular rations of each individual. This measure is supposed to have been one of the principal means of protection, that has rendered this disease since the period referred to, almost unknown. The rarity of its occurrence, however, renders it very important that its history and treatment should be familiar to the profession, as otherwise an improper treatment might be employed. Dr. ELLIOTSON observes, "I recollect distinctly seeing when a pupil, a man with scurvy, who had been to one medical man, who had taken out several of his teeth for him, and to another—a very eminent man—who told him it was a case of fungus hæmatodes of the gums."

It is a common observation of mariners, that scurvy seldom affects a crew much until they have been reduced to a short allowance of small beer and water. Captain Cook, who placed less reliance upon the antiscorbutics and antiseptics than most seamen, was able to preserve his men entirely free from scurvy, in his longest voyages, by furnishing them liberally with pure water and sound provisions, by

the avoidance of excessive fatigue, and protecting them against the vicissitudes of the climate, and causing them to observe the greatest attention in respect to cleanliness, and preserving their minds by various pastimes in a state of cheerfulness. The success of these measures certainly show the importance of preserving the chylopoietic viscera in a healthy condition, and of preventing undue excitement in the digestive mucous membrane. His men likewise had a good supply of fresh meat and sauer kraut.

Sir FRANCIS MILMAN mentions the cases of two females in the country who were affected with scurvy, from being confined to a diet of bread and tea, after being accustomed to better food. Facts of the same nature have been witnessed in this city. An individual who was restricted by a distinguished physician of this place, to a protracted course of vegetable diet, for the cure of hepatitis, displayed finally many scorbutic symptoms, which disappeared on the resumption of better food.

The following may be considered the common course of the invasion of scurvy; the blood from the deficient assimilation becomes impaired, necessarily contains a less proportion of fibrine, is unable longer to repair the detritus of the different portions of the body, and universal feebleness and loss of muscular power are found to ensue; the different textures of the body become softened, the lungs are unable to effect the decarbonization of the blood, the breath becomes putrid, the heart is unable to circulate the blood with its usual force, and the sanguineous capillaries allow their contents to exude both on the surfaces and in the interior of the body, so as sometimes to produce excessive hæmorrhages; ulcers break out on the lower extremities, old callus is dissolved, the gums become putrid, while the mental faculties are usually undisturbed near to the period of dissolution. Such has been its usual course when raging as an epidemic among bodies of men; and such, with little variation, it is found in those sporadic cases where it has occurred on land, and under circumstances, according to the account of authors, in which it could scarcely have been expected.

There is an affection sometimes met with, supposed to be a variety of this disease, characterized by many of the peculiarities of the latter, but with a greater predisposition to hæmorrhagic discharges. This affection is described by WERLHOFF and HUXHAM, and has been denominated by some *acute scurvy*, or *hæmorrhagic scurvy*. The latter says\*—

\* Letter to Dr. Lind.

"I find this disorder chiefly among those who drink heavy fulsome malt liquors, such as we generally have in this country, who eat very few vegetables, and live mostly on flesh and fish, that lead inactive lives, and indulge too much in ease and appetite. Many of our sedentary tradesmen very often fall into it, when they constantly drink the gross ale and beer of this country, and live chiefly on fish and salt provisions. On the contrary, the active, laborious husbandman, who drinks chiefly cider, eats much herbage, fruits, &c. and breathes a free open country air, seldom or never is affected with it.

"I have lately met with two scorbutic cases, which I beg leave here to send you.

"A young clergyman, by intemperance, great irregularities, and a very sedentary life, contracted a highly scorbutic state of body, with some degree of jaundice. He had spongy, bleeding gums, a most nauseous breath, a great number of pustules, and of black and livid spots all over his body, particularly on his arms, thighs, and legs. His legs were swelled, and on one of them was a sordid sanious ulcer. He had frequent tormina, and now and then bloody stools. The abdomen grew hard and tumid; he breathed with difficulty on the slightest motion, and sometimes fell into a *deliquium*. He bled often profusely from his nose, and many days before his death a bloody *ichor* leaked continually from his gums and mouth. But what is very singular, and for which I mention his case was, that three or four times a small stream of blood, not much bigger than a large horse hair, burst out from the sound skin of his arm and hand, which squirted out to the distance at least of two or three feet, and was with difficulty restrained by a very able surgeon. He stunk so much before he died, that the last time I visited him I could scarce bear the stench of his chamber, though not a small one.

"The other was a gentleman of fortune and family, who had long indulged to the utmost intemperance, and yet scarce used any exercise, seldom going abroad, even in his coach, above four or five times a year. He always delighted in very high-seasoned meats; and in a very astonishing manner, for two or three years before his death, would frequently swallow large quantities of the common volatile salts, as other people would candied carraways. The consequence was a hectic disorder, a vast eruption of pustules, black and blue spots and *vibices* all over his body, which caused a constant and intolerable itching; and by scratching continually, he tore his skin in a most shocking manner. He lost every tooth in his head, and his gums were destroyed and wasted quite to the jaw bone. He had always a sallow, and sometimes an icteric colour in his face, breast, &c. His urine was in small quantity, and exceedingly high-coloured, as if some portion of blood and soot had been dissolved in it, with a great greasiness on the top, and sometimes a film of all the colours of the rainbow. His legs swelled considerably, his *abdomen* became very tense, and his breath short. His breath was very highly offensive, and his tongue always foul. He was often seized with sudden and great faintness. He at length died in the highest degree of *marasmus*, having his nose and knees bent, and fixed together like a crooked skeleton, for some weeks before his death. He, indeed, lived a year or two longer than I thought he could have done, under such a highly scorbutic state; but I am persuaded, that his drinking very freely of the finest wines, and taking largely of the antiscorbutic juices, greatly contributed to prolong his life. He was upwards of sixty when he died."

Such cases happily are rare; one, however, having much analogy with the above, has lately occurred in the course of my practice, which I shall here detail, leaving it to the judgment of the profession to decide in regard to the propriety of classing it as a case of scurvy.

Some writers have been desirous of considering the abdominal affections, such as diarrhoea, dysentery, &c. as supervening diseases, but Broussais and many of the most authoritative pathologists look upon them as the characteristic terminations of the disease.

M. B. a cabinet maker in this city, emigrated three years ago from Ireland, has always been in comfortable circumstances, and is about thirty years of age. He was of a robust frame, fleshy, and had been throughout his life a very healthy man. For the last three months he had scarcely ever tasted salt meat, but usually took at his breakfast a tea-spoonful of salt. Fresh beef, veal, and poultry were the staple articles of his food, and he was noted for eating large quantities of bread, with a scanty portion of vegetables. Common beer was his favourite drink, of which he was in the habit of taking a pot daily. He has always confined himself closely to his shop, to which he lives next door, scarcely ever took a walk or ride, and usually spent his Sundays in his bed-chamber. He says he never takes medicine, and has not for many years been sick, though for several months past his cheeks have been growing pallid, and assuming a flabby look. I saw him first, May 22d, 1831.

He had for more than two weeks previous, and without any assignable cause, been affected with hæmorrhage from the gums and fauces, entirely without pain, but with a sensation of choking from extreme prolapsus uvulæ. He supposes he has spit daily during this time, a pint of mixed blood and saliva, and his shopmates estimate the quantity higher. His appetite, however, continued good, and his secretions apparently natural. He finally became so weak as to be obliged to abandon his shop. I found him with a pale bloated countenance, a pulse a little quick, but very soft and compressible, and hurried considerably on every attempt at locomotion; suffering no pain, but greatly alarmed by the appearance of purple spots, (*purpuræ hæmorrhagicae*) some having the appearance of freckles, and others in irregular patches, larger than the outspread hand, over the thighs, arms, and breast. They generally made their appearance at night, changed gradually from purple to blue and yellow, and finally disappeared in two or three days, to be renewed in another portion of the body. The back part of the pharynx and the whole lining membrane of the mouth was of a dark red hue, presenting in two or three places large purple swellings, apparently formed by the effusion of blood under

the mucous membrane. The gums were spongy and exuding blood, from nearly the whole of their surface, and especially round the margins of the teeth. The surface of the body was flabby, drier, and rather warmer than natural. The alvine and urinary discharges natural. Breath very fetid. Directed a gargarism of mel. rosarum, borax and mur. acid.; nitr. mur. acid internally, cider for drink, and vegetable soup.

24th. The inflammation of the fauces much reduced; feels a little stronger. But the oozing of the blood round the teeth still continues, and within a few hours has increased. Directed a thick decoction of flaxseed, with alum as a gargle.

25th. Seems to-day a little improved and less dejected. His appetite continues as good as when he enjoyed the most perfect health. The bleeding however continued round the teeth during the day, and several times from the nostrils. It broke out at midnight from the gums with much force, continuing to bleed till 9 A. M. The purple spots still continue to appear, though in less numbers. Directed to-day a dose of Epsom salt, and after its operation, pills of gum catechu, containing a small portion of sulph. quinine. Cider to be alternated with porter as a beverage. Oranges and lemons to be used ad libitum. Allowed beef tea.

26th. Does not seem quite so well as yesterday. Feels more debility. At night got no sleep. The bleeding was renewed about midnight and continued till near morning. Several ounces of blood were discharged, which appeared to coagulate, accompanied with much saliva. Applied with a pencil round the margins of the teeth from which the blood chiefly flows, a solution of the caustic, a drachm to the ounce. A slight eschar, when formed, controlled the bleeding, and seemed to diminish the excessive fetidity of the breath. The gums are very soft and painful, and are ruptured by slight pressure. Feels little inclined to eat—pulse weak and feeble, with great palpitation at his heart. Directed bark and serpentaria, with elixir vitriol. Beef tea and fresh meat soups. The purpuræ appear in increased numbers. A piece of cork to be kept between the teeth, in order to prevent the effects of suction.

27th. Hæmorrhage for the third time renewed about midnight. Yesterday afternoon oozed almost constantly through the slough produced by the caustic, notwithstanding the use of powerful astringents. Twitching and spasms of the muscles very evident, mental faculties undisturbed, though he is weak, fainty, and dispirited. Care is taken to keep the room well ventilated, and at a pleasant temperature. Huxham's tinct. bark, ʒi. three times a day, alternated with mur. tr. iron.



Port wine sangaree to be taken when he desires it, in alternation with his other drinks. Supposed to have lost during the night four or five ounces of blood. The purpuræ have again made their appearance. Discharges from the bowels dark and fetid, with a greasy, viscous appearance, like that of vitiated bile. Dr. W. E. HORNER in consultation. As the patient had lived much on fresh meat, directed a little table salt to be taken occasionally in solution. Powdered Alep. galls, to be blown on the gums and a saturated decoction of the same to be held in the mouth. Considering the origin of the disease to have been depraved action of the chylopoietic viscera, directed a small dose of calomel, in order to excite the action of the liver. Salt bath to his feet.

28th. Feels a little stronger, moves with more activity, though fainty on setting up. Bleeding renewed at midnight as usual—found considerable difficulty in arresting it; more purpuræ continue to appear. He takes port wine, porter sangaree, and cider, with gingerbread dissolved in them occasionally. Bowels not yet open; directed another small dose of calomel this morning, to be followed with a solution of Epsom salt. The powder and decoction of galls to be continued. Iced vinegar and water to be held occasionally in the mouth.

29th. Bleeding renewed again last evening, which we succeeded in arresting, by the use of galls as before, and coagulating the blood around the gums with lunar caustic, but without acting upon their tissue. Two black, thick and most offensive discharges have taken place from the bowels. The odour produced emesis; same sort of black matter was discharged from the stomach. Little bleeding from the gums through the day, and but a few small purpuræ have appeared upon the surface of the body. The weather is exceedingly hot, thermometer standing at  $87^{\circ}$  in the shade. Towards evening, the patient had some fever, with considerable heat of skin and headache. Pyroligneous acid directed instead of vinegar as a gargle, in order to diminish the fetor. The coagula which are allowed to accumulate upon the gums to repress the bleeding, appears to excite considerable pain. The patient complains of no other in any portion of his body.

30th. General appearance not so good, countenance more dejected, pulse weak, very quick, complains of no pain except that produced by the coagula upon his gums. Slept little during the night. Bloody serum constantly distilling from the mouth, the fibrine of the blood appearing to be arrested upon the gums by the decoction of galls. Urine dark brown colour, evidently containing dissolved blood, supposed to come from the kidneys. The purpuræ continue to appear,



especially round the neck and breast. Has vomited up part of the food he has taken, with black matter supposed to be hæmorrhage from the stomach; continued the use of mild tonics, and nutritious food, such as thin meat soup, calve's-foot jelly, mineral water of the shops to allay the sickness. The same astringent applications to the mouth. The pyroligneous acid enables the patient, by its destroying the fetor of his mouth, to take his food with more relish, and in considerable quantity. Complains of lightness of his head when he sits up. From this period no treatment seemed productive of much relief. As soon as the bleeding was suppressed from the mouth, it made its appearance from the alimentary canal and urinary organs. The pulse grew weaker, quicker, and the epigastric pulsations more conspicuous, which, though, not forcible, occurred over a large surface, as if the heart in its systole, was not reduced to its usual size. The stomach became very irritable, throwing off every thing that was taken, accompanied by a chocolate-coloured discharge, presenting much the appearance of black vomit. This finally was allayed by the neutral mixture, containing acetate of morphia. The discharges per anum were frequent, and consisted of a blackish fluid, containing large lumps of a black, fetid, greasy looking substance, having less the appearance of vitiated bile, than coagulated blood. His throat became sore, and he complained of a difficulty of swallowing. The bleeding was entirely arrested from his gums, and his breath was much less fetid. As his appetite left him, he became delirious, and purpuræ formed in immense patches on the inner part of his arms and legs, and over his breast. As he approached his end, he raved for drink, swallowed large quantities of beer, which was frequently thrown up again mixed with a mass of grumous matter. The black, insufferably fetid grumous discharges increased per anum, till they became involuntary. He was seized with a convulsion, and died a few hours after on the 2d of June.

*Autopsy, twenty-two and a half hours after death.*—Present, Drs. Horner, Bradley, and Pancoast. *General appearance.*—Body fat and of strong dimensions; the surface flabby and of a doughy feel, (though kept in an ice-box from a short period after death,) pale and exsanguineous, exhibiting a faint bluish tinge where the large maculated patches had formed a few days previously. Those formed shortly before death, retained the same purple appearance they then possessed.

*Abdomen.*—The muscles, when cut, seemed deprived of blood, softened in their texture, and presenting the brownish hue peculiar to horse flesh. Much adipose matter in the different omentæ, of a straw colour, and less consistent than usual. Purple spots, similar

to those of the surface, appear in various places under the parietal peritoneum and its reflexions.

*Stomach.*—Of a large size, containing about three gills of a dark chocolate-coloured mixture, consisting of the fluids swallowed, and of blood and mucus, from the internal coats of the stomach. The mucous membrane was very much softened throughout the whole of this organ. A part of that in the great extremity, the size of the hand, was much thickened, and of a bluish colour. The cardiac portion of the stomach was of a yellowish hue. In the other parts of this organ, brown and violet-coloured patches were seen, having somewhat the appearance of those of the exterior.

*Intestines.*—The mucous membrane of the duodenum was softened and injected, like the central portion of the stomach. The small intestines in a few places presented the same appearance, but were generally of a healthy character. Purpuræ were found on their exterior under the peritoneum. The colon throughout its whole course presented an appearance of the intensest irritation, much like that of dysentery. Its mucous membrane was thickened, softened, injected and puffed up in places by the effusion of dark blood into the cellular tissue below. It was of a chocolate colour in some places, and of a lighter hue in others. It contained a considerable quantity of dark grumous fetid matter, mixed with lumps, consisting of whitish coagulated lymph and black blood. Some of these fibrinous masses had the appearance of a hollow tube of false membrane. The mucous membrane of the rectum presented the same appearance at its upper portion, and contained some of the fibrinous masses of the colon. The mucous membrane of the colon presented in some places a dry polished appearance, as if all secretion had ceased.

The *Bladder* presented purple spots, both on its outer and inner surfaces.

The *Liver*, natural in its size and external appearance; almost entirely bloodless, much softened in its texture, and of a little darker hue internally than natural. The gall bladder filled with mucus coloured with bile.

The *Spleen* of a moderate size, and more consistent than it is usually met with, containing none of the grumous fluid commonly found in it.

*Kidneys.*—The left exhibiting in its pelvis some appearance of extravasated blood. The right, when cut open, presented throughout a dark appearance, owing to the presence of black blood. In the pelvis it was found in clots of considerable size of a black colour,

under the lining membrane, which was raised and distended by them. Their texture was softer than natural.

*Thorax.*—Lungs large and healthy. A moribund congestion had taken place in the posterior part of the left lung. The heart and vessels, including the venæ cavæ, were nearly destitute of blood. A little serous blood only was found smeared over the internal surface of these organs, which in other respects presented nothing unusual. The heart was much softer in its texture than it is commonly found. The blood met with in this dissection was not supposed to amount to more than ten or twelve ounces. The hæmorrhage evidently was the immediate cause of death.

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ART. XI. *Case of Diffused Femoral Aneurism, for which the External Iliac Artery was Tied.* By VALENTINE MOTT, M. D. Professor of Surgery in the College of Physicians and Surgeons, New York.

THE external iliac artery has been so repeatedly tied with success, that perhaps, the only interest attached to this case is the obscurity which attended its diagnosis. Whilst the leading features of its history, as well as the condition of the tumour, and the absence of some of the most prominent symptoms of aneurism were strongly indicative of the presence of matter, the situation of the wound and the location of the swelling, induced me to suspect the existence of the last-mentioned disease.

Not the least pulsation could be felt, and it was not until *visible motion, communicated to the hand by the tumour, and the cessation of it on compressing the artery above*, were observed whilst viewing it *obliquely*, that I could form any opinion upon the nature of the disease. This, together with the situation of the cicatrix and pulsation communicated through the stethoscope, decided, in my estimation, its aneurismal character, and determined me on tying the vessel. The result of the case will show that opinion to have been correctly founded.

Charles Fordham, aged 13, came under my care April 23d, on account of a tumour of his right thigh. The history given of it by the parents of the lad is as follows. On the morning of March 18th, while he was at school, a pen knife slid off the desk at which he was sitting; when clapping his knees suddenly together, to save it from falling, the blade pierced his right thigh, a short distance above the